

# ITU-T Speech and Audio Coding

Yusuke Hiwasaki

Associate Rapporteur, ITU-T SG16 Question 10

NTT Labs., Japan

# Outline

1. Note well
2. ITU-T jargons
3. Organization structure
4. How it works
  1. Decision making
  2. IPR issues
  3. Standardization process
  4. Membership
5. Alternatives
6. Conclusions

# Note well

Aim of this presentation:

- Clarify ITU-T speech/audio coding standardization processes
- No ITU-T opinions expressed in this document (opinions in the liaison statement)

# ITU-T jargons (1)

- **Study Group (SG):** collection of *Working Parties*
- **Working Party (WP):** collection of *Questions*
- **Question (Q):**
  - Group of experts working on work program(s)
  - Develops *Recommendation* (technical standards)
  - It's where agreements are reached
- **Rapporteur:** chair of Question
- **TSB:** Telecommunication Standardization Bureau

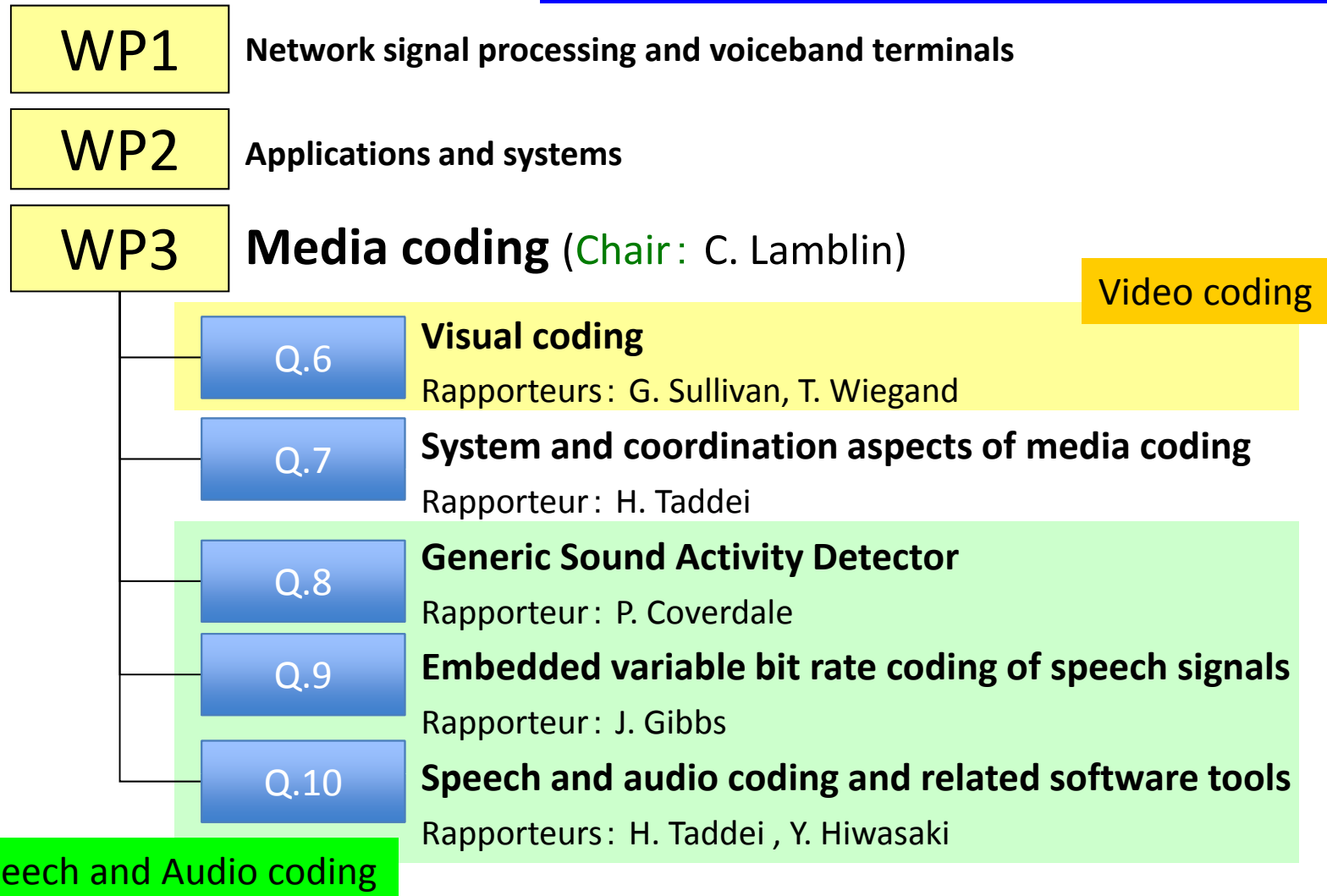
# ITU-T jargons (2)

- **Contributions:** Input document from member
- **Recommendations (Rec.):** ITU-T standards
  - **Annex** (of Rec.): Normative addition to Rec.
  - **Appendix** (of Rec.): Non-normative addition to Rec
- **Document:** Input document to a Rapporteur meeting
- **Terms of Reference (ToR):** rationale, applications, constraints, a list of requirements + objectives, of Rec.-to-be
- **AAP:** approval process for technical Recs. Triggered by “Consent”, finishes with *Last Call, Additional Review*, or the next SG meeting

# Organization structure

**Study Group 16 (SG16):** Multimedia coding, systems and applications

<http://www.itu.int/ITU-T/studygroups/com16/>



# How it works: Decision making

- Based on **consensus**

See <http://en.wikipedia.org/wiki/Consensus>

- “Lack of sustained objection”
- Entire group comes to an agreement
- The inputs and ideas all participants are gathered and synthesized to arrive at a final decision acceptable to all
- Concerns expressed by: **reservations**
- Blocked by: **objections** by 2 state members
- Extreme case: **voting**  
(in books only, not happened at least last 20yrs)

Unresolved issues at Q level: WP/SG level moderate towards consensus

# How it works: IPR issues (1)

- ITU-T/ITU-R/ISO/IEC patent policy  
<http://itu.int/ITU-T/dbase/patent/patent-policy.html>
- Patent policy selected from 3 options:
  1. Free of charge
  2. RAND (reasonable and non-discriminatory)
  3. Not licensable
- Guideline available at:  
[http://itu.int/dms\\_pub/itu-t/oth/04/04/T04040000010002PDFE.pdf](http://itu.int/dms_pub/itu-t/oth/04/04/T04040000010002PDFE.pdf)



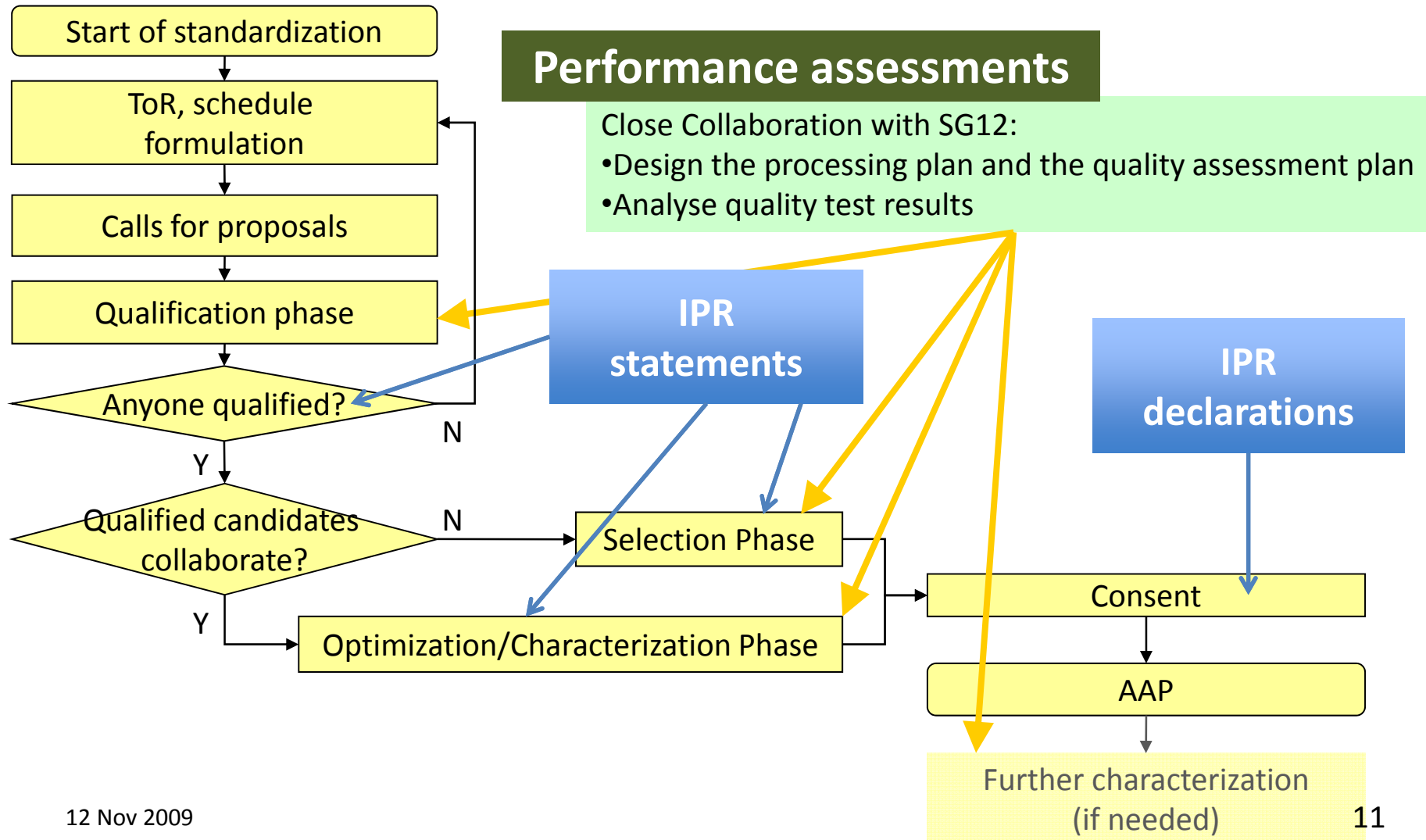
# How it works: IPR issues (2)

## Excerpt from guidelines:

... As long as the Organization [ITU-T] concerned has received **no indication of a Patent Holder selecting paragraph 2.3 [=“Not licensable”] of the Patent Policy, the Recommendation / Deliverable may be approved** using the appropriate and respective rules of the Organization concerned. **It is expected that discussions in Technical Bodies [Q/WP/SG] will include consideration of including patented material in a Recommendation / Deliverable, however the Technical Bodies may not take position regarding the essentiality, scope, validity or specific licensing terms of any claimed Patents. ...**

# How it works: Standardization process

## Case for ITU-T audio/speech codec



# How it works: Membership

- Applies for all SGs (SG2,5,9,11,13,15,16,17,TSAG)
- No registration fee for meetings
- State member: (don't worry unless you are a "state")
- Sector member: min. of 1/2 contributory unit = CHF 31,800 (US\$30,000)
- Associate member: (freedom of technical contribution equivalent to sector member) CHF 10,600 (US\$10,000 = sending 4 people to all 3 IETF meetings)
- Invited expert: invited by Rapporteur/Chair (for free)
- FYI:
  - IETF meetings: around \$700/person, 3 times a year
  - No T-shirts (or bags) for ITU-T meetings, but you could buy chocolates in UN Building

# Alternatives

- Focus group (Rec. A.7 <http://itu.int/rec/T-REC-A.7/en>)
  - Encourage the participation of members of other standards organizations, including experts and individuals who may not be members of ITU
- Intermediate body:
  - Joint Video Team:** Successfully created H.264 from video coding experts from both
    - ITU-T SG16 Q.6 (VCEG)
    - ISO/IEC JTC1 SC29 / WG11 (MPEG)
  - <http://itu.int/ITU-T/studygroups/com16/jvt/>

# Conclusions

No conclusions,  
hope this helped...